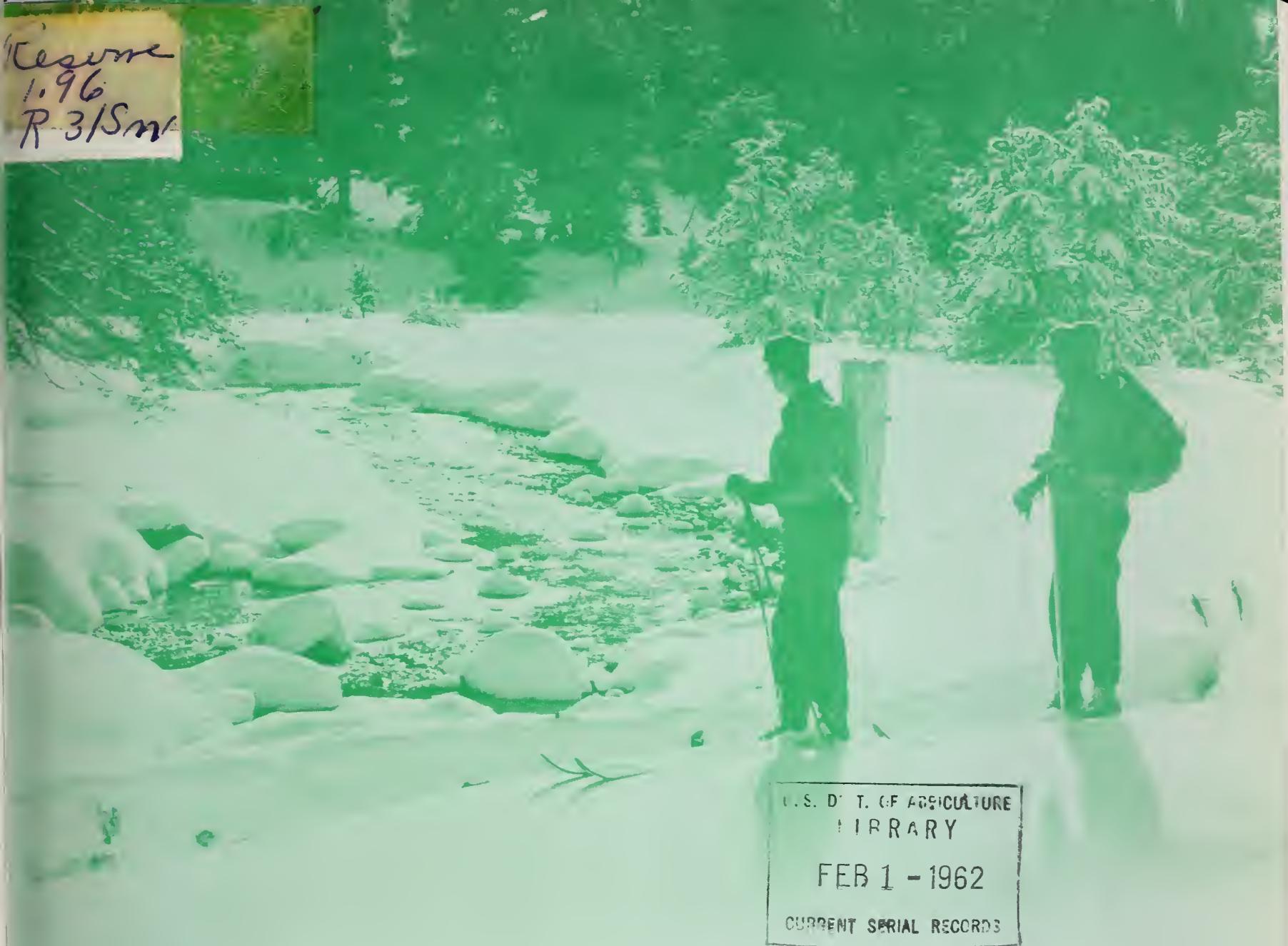


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WATER SUPPLY OUTLOOK and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS for ARIZONA

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE,
SALT RIVER VALLEY WATER USERS ASSOCIATION
and
ARIZONA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies
named above in cooperation with the Federal, State and pri-
vate organizations listed on the last page of this report.

AS OF
JAN. 15, 1962

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Cooperative Snow Survey and Water Supply Forecast Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

| <u>REPORTS</u> | <u>ISSUED</u> | <u>LOCATION</u> | <u>COOPERATING WITH</u> |
|--|------------------------------------|------------------------|--|
| RIVER BASINS | | | |
| COLORADO AND STATE OF UTAH — MONTHLY (JAN.-JUNE) — SALT LAKE CITY, UTAH — UTAH STATE ENGINEER AND OTHER AGENCIES | | | |
| COLUMBIA | MONTHLY (JAN.-MAY) | BOISE, IDAHO | IDAHO STATE RECLAMATION ENGINEER |
| UPPER MISSOURI AND STATE | MONTHLY (FEB.-JUNE) | BOZEMAN, MONTANA | MONT. AGR. EXP. STATION OF MONTANA |
| WEST-WIOE | OCT. 1, APR. 1, MAY 1 | PORTLAND, OREGON | ALL COOPERATORS |
| STATES | | | |
| ALASKA | MONTHLY (MAR.-MAY) | PALMER, ALASKA | ALASKA S.C.D. |
| ARIZONA | SEMI-MONTHLY (JAN. 15 - APR. 1) | PHOENIX, ARIZONA | SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION |
| COLORADO AND NEW MEXICO | MONTHLY (FEB.-MAY) | FORT COLLINS, COLORADO | COLO. AGR. EXP. STATION COLO. STATE ENGINEER N. MEX. STATE ENGINEER |
| IDAHO | MONTHLY (FEB.-MAY) | BOISE, IDAHO | IDAHO STATE RECLAMATION ENGINEER |
| NEVADA | MONTHLY (JAN.-MAY) | RENO, NEVAOA | NEVAOA DEPT. OF CONSERVATION AND NATURAL RESOURCES DIVISION OF WATER RESOURCES |
| OREGON | MONTHLY (JAN.-JUNE) | PORTLAND, OREGON | ORE. AGR. EXP. STATION OREGON STATE ENGINEER |
| WASHINGTON | MONTHLY (FEB.-JUNE) | SPOKANE, WASHINGTON | WN. STATE DEPT. OF CONSERVATION |
| WYOMING | MONTHLY (FEB.-JUNE) | CASPER, WYOMING | WYOMING STATE ENGINEER |

Copies of these various reports may be secured from:

Head, Water Supply Forecasting Section
Soil Conservation Service
P.O. Box 4170, Portland 8, Oregon

PUBLISHED BY OTHER AGENCIES

| <u>REPORTS</u> | <u>ISSUED</u> | <u>AGENCY</u> |
|------------------|---------------------|---|
| BRITISH COLUMBIA | MONTHLY (FEB.-JUNE) | COMPTROLLER, WATER RIGHTS BR., DEPT. OF LANDS AND FORESTS, PARLIAMENT BLDG., VICTORIA, B.C., CANAOA |
| CALIFORNIA | MONTHLY (FEB.-MAY) | CALIF. DEPT. OF WATER RESOURCES, SACRAMENTO, CALIF. |

194095

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
ARIZONA

(Salt, Verde, Gila and Part of Lower Colorado River Basin)

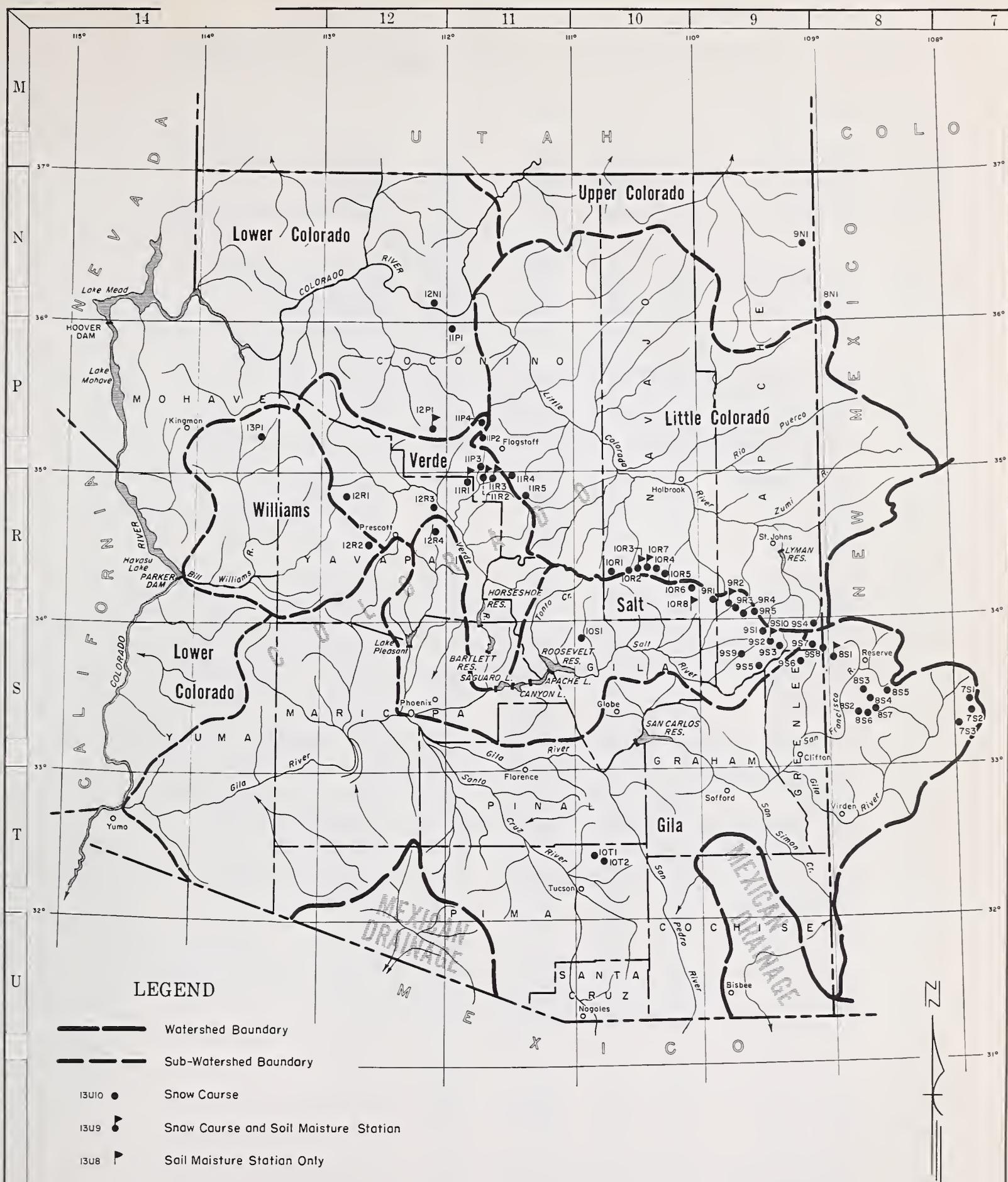
Report prepared by

RICHARD W. ENZ...SNOW SURVEY SUPERVISOR
SOIL CONSERVATION SERVICE
ROOM 6015 FEDERAL BUILDING
PHOENIX 25, ARIZONA

Issued by

ROBERT V. BOYLE
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE

VICTOR I. CORBELL
PRESIDENT
SALT RIVER VALLEY WATER USERS ASSOCIATION



ARIZONA COOPERATIVE SNOW SURVEYS

Snow Courses and Sub-Watersheds

JANUARY 1962

25 0 25 50 75
SCALE IN MILES

INDEX to SNOW COURSES and SOIL MOISTURE STATIONS

| NUMBER #* | NAME | SEC | TWP | RGE *** | ELEVATION | RIVER BASIN |
|-----------|--------------------|---------------------------------|-----|---------|-----------|---|
| 11P3 | Antelope Park | 29 | 19N | 8E | 7300 | Verde.....Discontinued |
| 9S1 | Baldy (p) | 28 | 7N | 27E | 9125 | Salt-Little Colorado |
| 10T1 | Bear Wallow | 6 | 12S | 16E | 8100 | Gila |
| 9S6 | Beaver Head | 13 | 4N | 30E | 8000 | Salt-Frisco |
| 9S3 | Big Lake Knoll | 2 | 5N | 28E | 8800 | Salt-Frisco-Little Colorado-- Discontinued |
| 7S3 | Black Canyon | 8 | 13S | 11W**** | 6790 | Gila.....Discontinued |
| 9S10-* | Black River Divide | 11 | 6N | 27E | 9100 | Salt-Little Colorado |
| 12N1 | Bright Angel | 34 | 33N | 3E | 8400 | Lower Colorado |
| 12R1 | Camp Wood | 3 | 16N | 6W | 5700 | Williams-Verde |
| 10R3-M | Canyon Creek | 18 | 11N | 15E | 7500 | Salt-Little Colorado--Replaced by 10R7-M |
| 10R7-M | Canyon Creek #2 | 18 | 11N | 15E | 7500 | Salt-Little Colorado |
| 11R2-M | Casner Park | 19 | 18N | 8E | 6930 | Verde |
| 12P1-M | Chalender | 27 | 22N | 3E | 7100 | Verde |
| 10R8-* | Corduroy Creek | Lat. 34°07' N. Long. 110°08' W. | | § | 6000 | Salt |
| 9S9 | Corn Creek (p) | Lat. 33°45' N. Long. 109°45' W. | | § | 7730 | Salt..... Not Read |
| 8S3 | Corner Mountain | 7 | 10S | 17W**** | 8850 | Gila-Frisco..... Not Read |
| 9S7 | Coronado Trail | 26 | 5N | 30E | 8000 | Salt-Frisco |
| 10R2 | Elk | 31 | 11N | 14E | 7600 | Salt-Little Colorado... Discontinued |
| 10R6 | Forest Dale | 2 | 9N | 21E | 6430 | Salt-Little Colorado |
| 11P2 | Fort Valley | 22 | 22N | 6E | 7350 | Verde-Little Colorado |
| 9R5 | Ft. Apache | 18 | 7N | 27E | 9160 | Salt-Little Colorado |
| 8S1-M | Frisco Divide | 31 | 6S | 20W**** | 8000 | Frisco-Gila |
| 12R4 | Gaddes Canyon | 11 | 15N | 2E | 7600 | Verde-Agua Fria |
| 10R5 | Gentry | 36 | 11N | 15E | 7600 | Salt |
| 11P1 | Grand Canyon | 21 | 30N | 4E | 7500 | Lower Colorado |
| 11R5 | Happy Jack | 30 | 17N | 9E | 7630 | Verde |
| 10R4 | Heber (p) | 28 | 11N | 15E | 7600 | Salt-Little Colorado |
| 8S6 | Ice King | 6 | 11S | 18W | 8020 | Frisco-Gila |
| 7S2 | Inman | 6 | 11S | 10W**** | 7800 | Gila |
| 12R2 | Iron Springs | 22 | 14N | 3W | 6200 | Williams-Verde |
| 9S2 | Maverick Fork (p) | 13 | 6N | 27E | 9050 | Salt |
| 9R4 | McKay Peak | 13 | 7N | 24E | 8250 | Salt..... Not Read |
| 9R2-M | McNary | 14 | 8N | 23E | 7200 | Salt-Little Colorado |
| 9R1 | Milk Ranch | 28 | 8N | 23E | 7000 | Salt |
| 12R3 | Mingus Mountain | 3 | 15N | 2E | 7100 | Verde-Agua Fria |
| 8S2 | Mogollon | 2 | 11S | 19W**** | 7000 | Frisco-Gila |
| 11R4 | Mormon Lake | 13 | 18N | 8E | 7350 | Verde-Little Colorado |
| 11R3-M | Mormon Mountain | 14 | 18N | 8E | 7500 | Verde |
| 11R1-M | Munds Park | 7 | 18N | 7E | 6500 | Verde |
| 8S4 | N-Bar Lake | 16 | 10S | 17W**** | 8600 | Gila..... Not Read |
| 8S5 | Negrito | 6 | 10S | 16W**** | 8200 | Gila..... Not Read |
| 9S4 | Nutrioso | 23 | 6N | 30E | 8500 | Salt-Frisco-Little Colorado |
| 9S5 | Pacheta | At Town of Maverick, Ariz. | | | 7800 | Salt |
| 8S7 | Redstone Trail | 5 | 11S | 18W | 8600 | Frisco-Gila |
| 9N1 | Roof Butte | 15 | 8N | 6W**** | 8500 | Little Colorado... Not Read |
| 10T2 | Rose Canyon | 15 | 12S | 16E | 7300 | Gila |
| 11P4 | Snow Bowl | 36 | 23N | 6E | 10,260 | Verde |
| 9S8 | State Line | 6 | 6S | 21W**** | 8000 | Gila-Frisco |
| 7S1 | Taylor Creek | 20 | 10S | 10W**** | 7850 | Gila |
| 9R3 | Trout Creek | 5 | 7N | 24E | 6400 | Salt..... Not Read |
| 8N1 | Washington Pass | Lat. 36°05' N. Long. 108°50' W | | | 8600 | Little Colorado- Not Read |
| 13P1 | Willow Ranch | 16 | 21N | 11W | 5000 | Williams |
| 10R1 | Woods Canyon | 15 | 11N | 13E | 7640 | Salt-Little Colorado-- Discontinued |
| 10S1 | Workman Creek | 33 | 6N | 14E | 6900 | Salt |

* SOIL MOISTURE STATION ONLY

** NUMBER INDICATES LOCATION OF SNOW COURSE WITHIN COORDINATE RECTANGLE.
THUS 9N1 IS COURSE #1 IN COORDINATE RECTANGLE 9N.

*** ALL IN GILA AND SALT RIVER BASE AND MERICIAN EXCEPT WHERE OTHERWISE
INDICATED.

**** NEW MEXICO PRINCIPAL MERICIAN

***** NAVAJO BASE

M SOIL MOISTURE STATION INSTALLED ON OR IN VICINITY OF SNOW COURSE.

S UNSURVEYED

(p) STORAGE GAGE INSTALLED ON OR IN VICINITY OF SNOW COURSE.

194095

ARIZONA WATER SUPPLY OUTLOOK

January 15, 1962

*
* The 1962 Water Supply Outlook for Arizona is good. *
* Good runoff the last two months has raised the *
* major reservoirs to about average levels. Average *
* precipitation this season should result in above *
* average runoff. *
* *

SNOW COVER: Above average snow cover is reported. The snow pack is 251% of average on the Salt River Watershed, and 131% of average on the Verde. The upper Gila River drainage is 380% of average. Most of the snow measured was a result of the mid-December storm.

RESERVOIR STORAGE: Runoff on the upper Gila River and Salt River Watersheds was considerably above normal during November and December. As a result San Carlos Reservoir now contains 77,392 acre feet. This is 96% of average for this date. The Salt River Valley System with 870,900 acre feet is 119% of average for January 15. Lyman Reservoir and Show Low Lake are very low because cold weather has retarded runoff.

SOIL MOISTURE: Soil moisture is very good, especially at higher elevations. The fall and early winter storms have greatly improved soil moisture conditions in the state. Additional storms in the near future should yield good runoff.

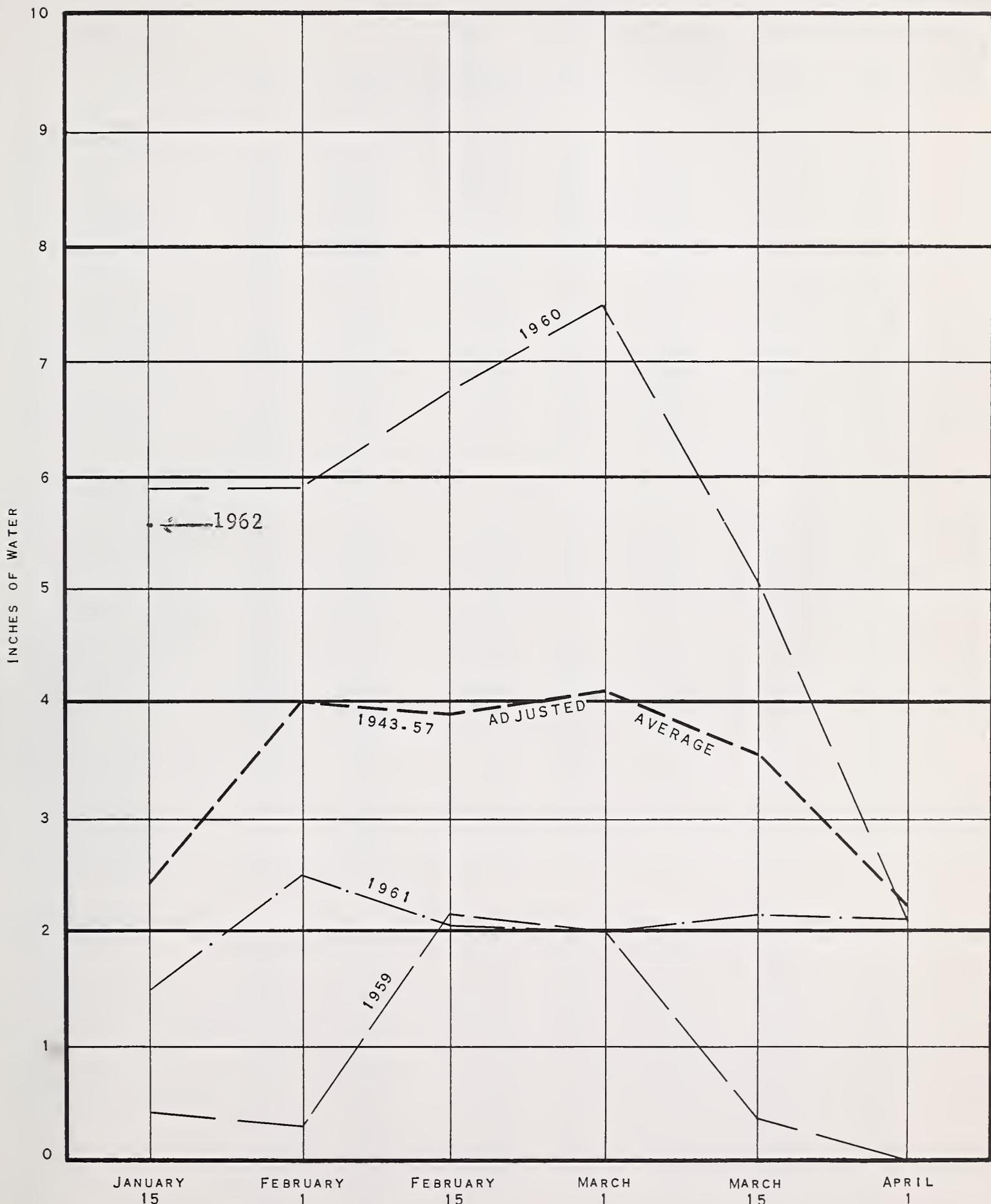
STATUS OF ARIZONA RESERVOIR STORAGE - ABOUT JANUARY 15, 1962

| SUB- WATERSHED and/or STREAM | RESERVOIR | USABLE CAPACITY 1000s AC. FT. | USABLE STORAGE - 1000s ACRE FEET | | | 15-Year Average 1943-57 |
|---|---------------|--|----------------------------------|----------|----------|-------------------------------|
| | | | 1962 | 1961 | 1960 | |
| <u>GILA RIVER SUB-WATERSHED</u> | | | | | | |
| Agua Fria | Lake Pleasant | 163.3 | 11.7 | 27.1 | 44.2 | 20.5 |
| Gila | San Carlos | 1,206.0 | 77.4 | 2.4 | 127.9 | 80.3 |
| Verde | Bartlett | 179.5 | 35.4 | 19.7 | 125.9 | 27.3 |
| Verde | Horseshoe | 142.8 | 16.0 | 9.3 | 115.8 | 14.6 * |
| Salt | Roosevelt | 1,382.0 | 551.2 | 861.8 | 686.5 | 421.2 |
| Salt | Apache | 245.0 | 150.1 | 242.0 | 238.7 | 181.2 |
| Salt | Canyon | 58.0 | 53.1 | 48.6 | 57.0 | 31.9 |
| Salt | Saguaro | 70.0 | 65.1 | 48.1 | 68.8 | 24.4 |
| <u>LOWER COLORADO RIVER SUB-WATERSHED</u> | | | | | | |
| Colorado | Lake Havasu | 619.4 | 539.1 | 537.5 | 548.1 | 552.0 |
| Colorado | Lake Mohave | 1,810.0 | 1,661.0 | 1,696.0 | 1,699.0 | 1,555.9 * |
| Colorado | Lake Mead | 27,207.0 | 17,983.0 | 19,153.0 | 19,416.0 | 17,849.0 |
| Little Colorado | Lyman | 30.6 | 0.9 | 6.6 | 10.0 | 5.6 |
| Little Colorado | Show Low Lake | 5.1 | 0.0 | 0.1 | 5.1 | -- |

* Average is for less than 15 years of record in the 1943-57 period.

RELATIVE SNOW WATER ACCUMULATION ARIZONA

JANUARY 15, 1962



This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.

ARIZONA SNOW SURVEYS - ABOUT JANUARY 15, 1962

| SUB-WATERSHED and SNOW COURSE | No. | Elev. | SNOW COVER MEASUREMENTS | | | | | PAST RECORD | | |
|-------------------------------------|--------|-------|-------------------------|------------------------|---------------------------|---------------------------|------|-------------|------------------------|--|
| | | | Date of Survey | 1962 | | Water Content (In.) | 1961 | | Water Content (Inches) | |
| | | | | Snow Depth (In.) | Water Content (In.) | | 1960 | Average | 1943-57 | |
| <u>GILA RIVER</u> | | | | | | | | | | |
| Redstone Trail | 8S7 | 8600 | 1/14 | 34 | 9.2 | 7.6 | --- | --- | --- | |
| Nutrioso | 9S4 | 8500 | 1/15 | 15 | 3.7 | 1.6 | 3.7 | 1.4 | | |
| Bear Wallow | 10T1 | 8100 | 1/14 | 36 | 11.5 | 0.7 | 9.1 | 2.2 | ** | |
| Frisco Divide | 8S1 | 8000 | 1/12 | 15 | 3.3 | 1.9 | 4.9 | 1.3 | | |
| Ice King | 8S6 | 8000 | 1/15 | 35 | 5.8 | 4.4 | --- | --- | | |
| State Line | 9S8 | 8000 | 1/12 | 15 | 3.6 | 1.9 | 6.4 | 1.5 | | |
| Coronado Trail | 9S7 | 8000 | 1/15 | 19 | 5.6 | 2.7 | 4.0 | 1.9 | | |
| Beaver Head | 9S6 | 8000 | 1/14 | 23 | 5.8 | 1.9 | 6.6 | 2.0 | | |
| Taylor Creek | 7S1 | 7850 | 1/14 | 8 | 1.8 | 0.0 | 3.0 | 0.5 | | |
| Inman | 7S2 | 7800 | 1/14 | 8 | 2.1 | 0.0 | 3.0 | 0.5 | ** | |
| Rose Canyon | 10T2 | 7300 | 1/14 | 30 | 9.6 | 0.9 | 6.0 | 0.9 | ** | |
| Mogollon | 8S2 | 7000 | 1/15 | 18 | 2.7 | 2.2 | 3.2 | 0.9 | ** | |
| <u>SALT RIVER</u> | | | | | | | | | | |
| Ft. Apache * | 9R5 | 9160 | 1/14 | 42 | 10.8 | 3.1 | 8.7 | 4.4 | ** | |
| Baldy * | 9S1 | 9125 | 1/14 | 41 | 10.5 | 3.2 | 8.3 | 3.8 | ** | |
| Maverick Fork | 9S2 | 9050 | 1/14 | 43 | 11.8 | 3.6 | 9.8 | 4.9 | ** | |
| Nutrioso | 9S4 | 8500 | 1/15 | 15 | 3.7 | 1.6 | 3.7 | 1.4 | | |
| Coronado Trail | 9S7 | 8000 | 1/15 | 19 | 5.6 | 2.7 | 4.0 | 1.9 | | |
| Beaver Head | 9S6 | 8000 | 1/14 | 23 | 5.8 | 1.9 | 6.6 | 2.0 | | |
| Pacheta | 9S5 | 7800 | 1/15 | 22 | 7.0 | 0.0 | 8.5 | 2.4 | ** | |
| Gentry | 10R5 | 7600 | 1/13 | 15 | 2.9 | 0.8 | 6.7 | 1.7 | ** | |
| Heber | 10R4 | 7600 | 1/13 | 19 | 4.1 | 0.9 | 7.2 | 1.7 | ** | |
| Canyon Creek #2 | 10R7-M | 7500 | 1/13 | 16 | 3.8 | 0.8 | 6.5 | --- | | |
| McNary | 9R2-M | 7200 | 1/15 | 17 | 4.7 | 0.0 | 6.3 | 1.5 | | |
| Milk Ranch | 9R1 | 7000 | 1/15 | 14 | 3.6 | 0.0 | 4.4 | 0.8 | | |
| Workman Creek | 10S1 | 6900 | Report | Delayed | | 0.0 | 8.8 | 3.3 | ** | |
| Forest Dale | 10R6 | 6430 | 1/15 | 9 | 2.2 | 0.0 | 3.0 | 0.6 | | |
| <u>VERDE RIVER</u> | | | | | | | | | | |
| Snow Bowl | 11P4 | 10260 | 1/14 | 25 | 6.1 | --- | --- | --- | | |
| Happy Jack | 11R5 | 7630 | 1/15 | 12 | 3.0 | 0.0 | 6.2 | 2.6 | ** | |
| Gaddes Canyon | 12R4 | 7600 | 1/15 | 19 | 4.5 | 0.6 | 6.6 | --- | | |
| Mormon Mountain | 11R3-M | 7500 | 1/12 | 14 | 5.1 | 0.6 | 5.2 | 3.8 | ** | |
| Mormon Lake * | 11R4 | 7350 | 1/12 | 14 | 4.1 | 0.9 | 3.5 | 2.6 | ** | |
| Fort Valley * | 11P2 | 7350 | 1/15 | 9 | 1.4 | 0.0 | 4.0 | 2.0 | ** | |
| Mingus Mountain | 12R3 | 7100 | 1/15 | 5 | 1.5 | 0.0 | 2.9 | 0.9 | ** | |
| Chalender | 12P1-M | 7100 | 1/15 | 13 | 2.9 | 0.9 | 4.0 | 2.5 | ** | |
| Casner Park | 11R2-M | 6930 | 1/12 | 14 | 4.8 | 0.0 | 1.8 | 2.4 | ** | |
| Munds Park | 11R1-M | 6500 | 1/12 | 9 | 3.0 | 0.0 | 1.2 | 1.6 | ** | |
| Iron Springs * | 12R2 | 6200 | 1/15 | 6 | 1.0 | 0.0 | 5.0 | 1.5 | ** | |
| Camp Wood | 12R1 | 5700 | 1/14 | 4 | 0.4 | 0.0 | 2.2 | 1.0 | ** | |

* On Adjacent Drainage

** 1943-57 Adjusted Average

ARIZONA SNOW SURVEYS - ABOUT JANUARY 15, 1962

| SUB-WATERSHED and SNOW COURSE | No. | Elev. | SNOW COVER MEASUREMENTS | | | | PAST RECORD | | |
|-------------------------------------|--------|-------|-------------------------|------------------------|---------------------------|------------------------|-------------|------|---------|
| | | | Date of Survey | Snow Depth (In.) | Water Content (In.) | Water Content (Inches) | | | |
| | | | | | | 1962 | 1961 | 1960 | Average |
| <u>WILLIAMS RIVER</u> | | | | | | | | | |
| Iron Springs | 12R2 | 6200 | 1/15 | 6 | 1.0 | 0.0 | 5.0 | 1.5 | ** |
| Camp Wood * | 12R1 | 5700 | 1/14 | 4 | 0.4 | 0.0 | 2.2 | 1.0 | ** |
| Willow Ranch | 13P1 | 5000 | 1/13 | T | 0.0 | 0.0 | 1.0 | 1.0 | ** |
| <u>LOWER COLORADO RIVER</u> | | | | | | | | | |
| Bright Angel | 12N1 | 8400 | No Survey | | | No Survey | --- | 5.2 | ** |
| Grand Canyon | 11P1 | 7500 | 1/14 | 8 | 2.3 | 1.5 | 3.8 | 1.9 | ** |
| Fort Valley | 11P2 | 7350 | 1/15 | 9 | 1.4 | 0.0 | 4.0 | 2.0 | ** |
| Chalender * | 12P1-M | 7100 | 1/15 | 13 | 2.9 | 0.9 | 4.0 | 2.5 | ** |
| <u>LITTLE COLORADO RIVER</u> | | | | | | | | | |
| Ft. Apache | 9R5 | 9160 | 1/14 | 42 | 10.8 | 3.1 | 8.7 | 4.4 | ** |
| Baldy | 9S1 | 9125 | 1/14 | 41 | 10.5 | 3.2 | 8.3 | 3.8 | ** |
| Nutrioso | 9S4 | 8500 | 1/15 | 15 | 3.7 | 1.6 | 3.7 | 1.4 | |
| Happy Jack * | 11R5 | 7630 | 1/15 | 12 | 3.0 | 0.0 | 6.2 | 2.6 | ** |
| Gentry | 10R5 | 7600 | 1/13 | 15 | 2.9 | 0.8 | 6.7 | 1.7 | ** |
| Heber | 10R4 | 7600 | 1/13 | 19 | 4.1 | 0.9 | 7.2 | 1.7 | ** |
| Canyon Creek #2 | 10R7-M | 7500 | 1/13 | 16 | 3.8 | 0.8 | 6.5 | --- | |
| Mormon Mountain | 11R3-M | 7500 | 1/12 | 14 | 5.1 | 0.6 | 5.2 | 3.8 | ** |
| Mormon Lake | 11R4 | 7350 | 1/12 | 14 | 4.1 | 0.9 | 3.5 | 2.6 | ** |
| Fort Valley | 11P2 | 7350 | 1/15 | 9 | 1.4 | 0.0 | 4.0 | 2.0 | ** |
| McNary | 9R2-M | 7200 | 1/15 | 17 | 4.7 | 0.0 | 6.3 | 1.5 | |
| Forest Dale | 10R6 | 6430 | 1/15 | 9 | 2.2 | 0.0 | 3.0 | 0.6 | |

* On Adjacent Drainage

** 1943-57 Adjusted Average

PRECIPITATION AT SELECTED ARIZONA STATIONS *

| STATION | Precipitation (Inches) | | | Current Water Year (Oct. 1961 - Dec. 1961) | |
|-----------------------|------------------------|----------------------------------|----------------------------------|---|----------------------------------|
| | December - 1961 | | Departure from long term mean | Total | Departure from long term mean |
| | Total | Departure from long term mean | | | |
| Ash Fork | 1.35 | + .08 | | 2.12 | - .44 |
| Clifton | 3.15 | + 2.03 | | 7.45 | + 5.17 |
| Douglas Smelter | ---- | ---- | | ---- | ---- |
| Flagstaff WBAS ** | 3.15 | + 1.29 | | 6.47 | - 2.26 |
| Grand Canyon Hq. | 1.62 | + .11 | | 2.59 | - .53 |
| Parker | .51 | - .17 | | .53 | - .61 |
| Payson Ranger Station | 3.20 | + 1.20 | | 4.49 | 0 |
| Phoenix WBAS ** | .85 | - .12 | | 1.05 | - .79 |
| Prescott WBAS ** | .65 | - .72 | | 1.53 | + 1.09 |
| Springerville | 1.03 | + .58 | | 5.74 | - 1.84 |
| Tucson WBAS ** | 1.57 | + .63 | | 2.66 | - .49 |
| Winslow WBAS *** | .76 | + .23 | | 2.02 | + .51 |
| Yuma WBAS ** | 1.43 | + .88 | | 1.51 | + .50 |

** WBAS - Weather Bureau Airport Station

* Data and Analysis furnished by Paul C. Kangieser,
Arizona State Climatologist, U. S. Weather Bureau,
Phoenix, Arizona

LIST OF SNOW SURVEYORS

| <u>SNOW COURSE</u> | <u>SURVEYOR</u> |
|-----------------------|--|
| Baldy ----- | SCS and SRVWUA |
| Bear Wallow ----- | Forest Service - David Park |
| Beaver Head ----- | N. A. Josh |
| Bright Angel ----- | National Park Service |
| Camp Wood ----- | Mrs. C. C. Merritt |
| Canyon Creek #2 ----- | SCS and SRVWUA |
| Casner Park ----- | SCS and SRVWUA |
| Chalender ----- | Forest Service - MacIntyre |
| Coronado Trail ----- | Forest Service - Bill Brainard & W. L. Sanders |
| Forest Dale ----- | Fort Apache Reservation - Boyer and Endfield |
| Frisco Divide ----- | Forest Service - Joe Clayton |
| Ft. Apache ----- | SCS and SRVWUA |
| Fort Valley ----- | Rocky Mountain Forest & Range Experiment Station |
| Gaddes Canyon ----- | SCS - Bill Gray |
| Gentry ----- | SCS and SRVWUA |
| Grand Canyon ----- | National Park Service - Robt. Heyder |
| Happy Jack ----- | Emil O. Ryberg |
| Heber ----- | SCS and SRVWUA |
| Ice King ----- | James R. Wray |
| Inman ----- | C. H. McCauley |
| Iron Springs ----- | Ernest Saxby |
| McNary ----- | Fort Apache Reservation - Boyer and Endfield |
| Maverick Fork ----- | SCS and SRVWUA |
| Milk Ranch ----- | Fort Apache Reservation - Boyer and Endfield |
| Mingus Mountain ---- | SCS - Bill Gray |
| Mogollon ----- | James R. Wray |
| Mormon Lake ----- | SCS and SRVWUA |
| Mormon Mountain ---- | SCS and SRVWUA |
| Munds Park ----- | SCS and SRVWUA |
| Nutrioso ----- | Forest Service - Bill Brainard & W. L. Sanders |
| Pacheta ----- | Foch Phillips |
| Redstone Trail ----- | James R. Wray |
| Rose Canyon ----- | Forest Service - David Park |
| Snow Bowl ----- | Forest Service - Jay Shoemaker |
| State Line ----- | Forest Service - Joe Clayton |
| Taylor Creek ----- | C. H. McCauley |
| Willow Ranch ----- | Tiny Miller |
| Workman Creek ----- | Rocky Mountain Forest & Range Experiment Station |

The Following Organizations Cooperate in the Arizona Snow Survey Work

FEDERAL

Department of Agriculture

Soil Conservation Service

Forest Service

Apache Forest

Coconino Forest

Coronado Forest

Gila Forest

Kaibab Forest

Prescott Forest

Rocky Mountain Forest and Range Experiment Station

Tonto Forest

Department of Commerce

Weather Bureau

Arizona Section

Department of Interior

Bureau of Reclamation

Region III

Geological Survey

Arizona District

Bureau of Indian Affairs

Fort Apache Reservation

San Carlos Irrigation Project

National Park Service

Grand Canyon National Park

Gila Water Commissioner

Safford, Arizona

STATE

Arizona Agricultural Experiment Station

IRRIGATION PROJECTS

Salt River Valley Water Users' Association

Phoenix, Arizona

San Carlos Irrigation and Drainage District

Coolidge, Arizona

PRIVATE

Southwest Lumber Mills, Inc.

McNary, Arizona

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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with the Snow Survey"*